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(54) Title: PHOTOCURABLE COMPOSITIONS

(57) Abstract: An optical moulding process is disclosed comprising the sequential steps of: (a)(y) forming a layer of a photocurable composition; and (bXz) irradiating selected areas of the composition in the layer with radiation from a radiation source, thereby curing the composition in said selected areas and repeating the steps a) and b) on top of an earlier cured layer to form a three dimensional structure, wherein the radiation source used in step b) is a non-coherent source of radiation and wherein the photocurable composition comprises at least two curable components: (i) 45% - 95% (and preferably at least 50%, more preferably at least 60%, e.g. at least 70%) by weight of the total curable components in the composition is a first component that is photocurable and that is such that, when cured in the presence of a photocuring initiator by exposure to UV radiation having an energy of 30 mJ/cm<sup>2</sup>, at least 90% of the component is cured within 50 milliseconds; and (ii) 5% to 55% (and preferably 10 -40%, more preferably 15 to 30%, e.g. about 20%) by weight of the total curable components in the composition is a second component that results in the composition, on curing, shrinking, in a linear direction, by less than 3% and preferably that results in the composition having, after cure, a T<sub>g</sub> of greater than 50° C, preferably at least 100°C and more preferably at least 120°C.



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